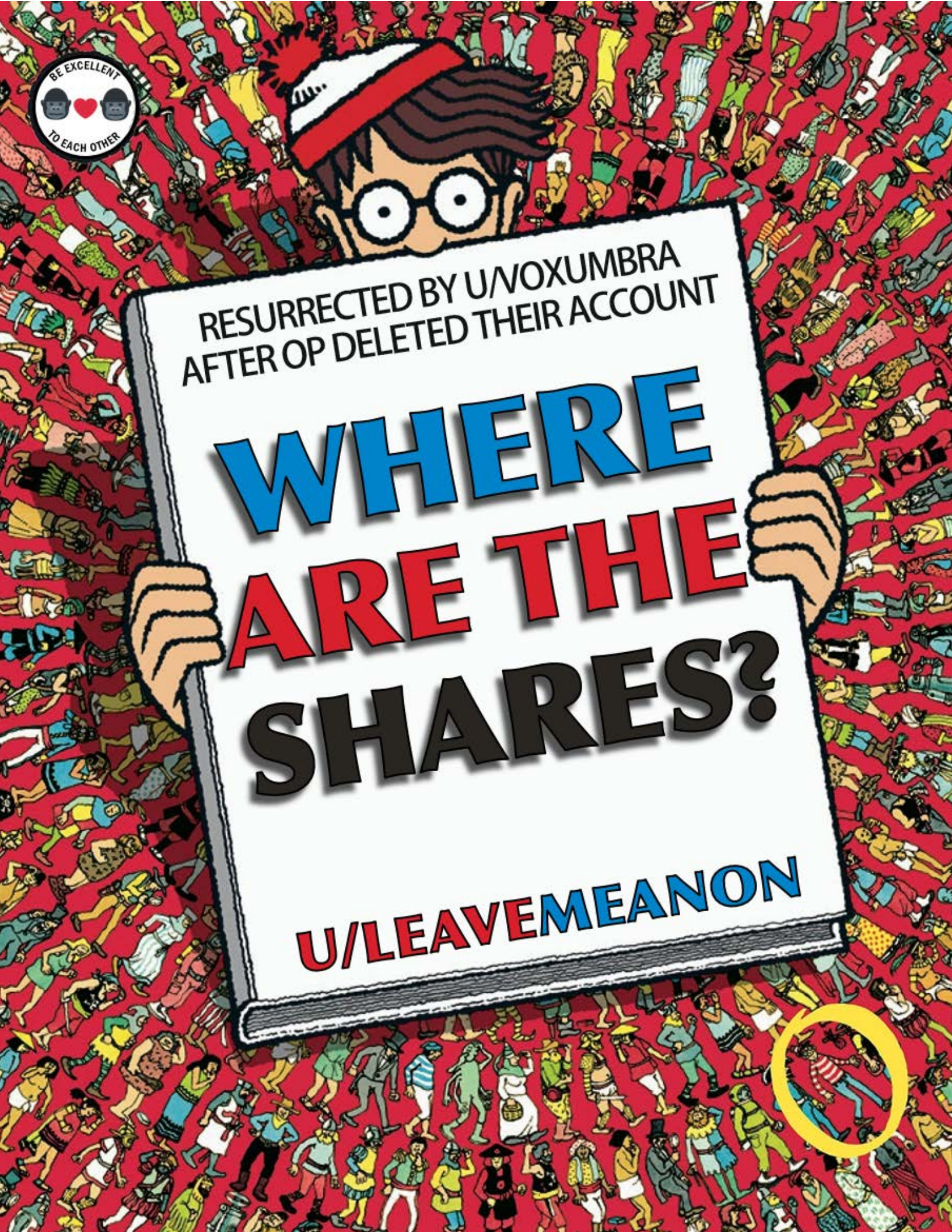
BE EXCELLENT
TO EACH OTHER
RESURRECTED BY U/VOXUMBRA
AFTER OP DELETED THEIR ACCOUNT
WHERE
ARE THE
SHARES?
U/LEAVEMEANON

WHERE ARE THE SHARES Resurrected

Possible DD

[Part 2]

[Part 3]

Hi all,

There were a lot of apes in the daily discussion thread wondering why the DD by /u/leavemeanon was gone. Turns out they've deleted their account for some reason, along with their posts. I did a bit of digging and managed to recover their posts (shoutout to https://camas.github.io/reddit-search), which I'll be shamelessly reposting as there seems to be some demand:

So, without further ado:

This post is the first of (at least) 3. I've been writing it for a few days now, so it's pretty long. Some parts are a little repetitive, but this stuff is complicated (for a reason) and I really want people to understand how it works. Clarity is important to me because 1) I want to know when I'm wrong, and 2) obscurity and complexity are pretty much the only things supporting the House of Cards.

Oh and I hate to ask but - even if you just read the TLDR (or can't read all) but think the post is at least worth looking at, please upvote. I've seen the power of the bots and all the words are scary to begin with. Save the award money for more GME

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TLDR:

APs, like Citadel, use ETFs to provide liquidity. When there are lots of buyers (GME in January), it's their job to make sure those buyers have sellers to reduce volatility. Yes, stopping squeezes is a large part of their job. They do this by buying ETF shares and selling the GME inside. **BUT** the SEC has made a series of exemptions for APs that allows them to sell ETF shares up to 6 days before depositing the securities needed for creation. It's selling before buying, and not locating shares to borrow. That's naked shorting, up to 50,000 shares at a time. And the securities needed for deposit within 6 days, the ones naked shorted? They go unreported as part of *bona fide* market making. That's where (some of) the shares are. In this post, I go looking for them.

//

ELIA:

ETFs trade on the market like stocks, but they actually represent some proportion of underlying securities. Authorized Participants (APs are big banks and Citadel) trade ETFs in groups of 50,000 shares called "creation baskets" - and these creation baskets can be exchanged with the underlying securities in the ETFs proportions. (lol it's actually *any* proportion, but more on that later)

For an AP: 50,000 shares of ETF = "creation basket" = 50,000 shares of underlying securities.

They're interchangeable, for a small fee.

This process allows APs to profit from arbitrage: the process of creating or redeeming creation baskets to profit from differences in an ETF's market price and the Net-Asset-Value (NAV) of the securities underlying it. A presentation given

at Wharton (linked below) showed that APs can make higher and more “predictable” returns by exploiting an exemption that allows them to **sell ETF shares that they do not own up to 6 days before purchasing the securities needed to create them.**

This is effectively short selling via ETF, **and** they are legally exempt from locating a valid share to borrow. So it’s naked short selling via ETF.

Also, the shares deposited (short, naked, or otherwise) for ETF creation are not recorded on the APs books, so any short interest involved in arbitrage will not show up in FINRA numbers. Per the Securities Act of 1933.

However, as the presentation explains, evidence of this activity would include creation of ETF shares without redemption, particularly in ETFs that are more liquid than their underlying securities. *cough, GME, cough*

This would result in consistently increased ownership in the ETF, so evidence of this process can be found in ETF ownership anomalies.

I discuss this data and more, which ultimately suggest, in my opinion, overwhelming evidence of heinous levels of naked short selling across multiple securities, systemically linked through these ETFs and hidden by *bona fide* market making arbitrage provisions. Due to liquidity, or lack thereof, and GME’s 60+ ETFs, it was the perfect target for this activity. This is why GME is the black hole.

Whoopsie

I argue that Citadel and friends tried bankrupting GME with this system by hiding naked shorts and FTDs across these ETFs, hoping to dilute share price all the way to bankruptcy. I discuss mechanism behind this, HFT’s role, how BoA, GS, and JP got involved, how RC pretty much handed Citadel’s balls over to BlackRock, and what all the footprints left behind might reveal about the scope of this whole thing.

Spoiler, they’re fucked[fucked]

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Preface

((**I’m skeptical by nature. Like any tool, skepticism isn’t inherently good or bad - it’s just useful. In some cases more than others.**))

As a disclaimer, not only am I **not** a financial advisor. 6 months ago I had virtually **no** financial background whatsoever. The entirety of my relevant knowledge has come from months of independent research and personal interviews. I believe it’s fair to say I have a proficiency for puzzles and a nose for bullshit - and the dynamic between the two has served me well in the past.

I attempt to discuss an *incredibly* complex system here, the depth of which I’m certainly ignorant to. I decided the “Great Wall of Text” approach just was too much. Plus, I’ve been so close to putting things together for such a long time, I’m eager to have it reviewed. So I’d like present the story as soon as possible it to encourage more apes to dig deeper into this stuff.

I’m sure many of you have years of experience beyond me, but I’ve gone to great lengths in trying to understand the mechanics and regulations at a granular level - as well as their context in the events we’ve hodled through - so I hope you’ll at least give me a chance. I *really* hope you can correct me where I’m mistaken. I’ll try to answer all questions I can

in the comments. I just like to figure stuff out.

It took months of notes and connecting dots to put this together, and I'll eventually discuss mechanics and examples of arbitrage, creation/redemption, liquidity provisions, ex-clearing, synthetic options positions, gamma-delta hedging, disclosure laws, exemptions, Repos, RRPs, APs/MMs/BDs, FTDs, ETFs, ETNs, and all the regulations supposedly governing this whole fiasco. I try to stick to the official facts and documents, and I hope you glance at the sources I linked.

I'll try keeping it to 3 chapters, though. This post will be the first - on ETF Arbitrage and it's importance to GME.

Introduction

The true beginning of this story has been diligently and beautifully covered in the last few weeks by u/autobitt, u/dlauer, Dr. T, Wes Christian, and more. It starts with greedy and malicious short sellers making fortunes at the expense of companies, their employees, and their shareholders. This problem has existed for decades but was able to scale around 1990 - with the emergence of High Frequency Trading (HFT), Exchange Traded Funds (ETFs) and Options trading. Together, they allowed shares sold short and FTDs to essentially be scattered in various places, as this 2019 video and this 2013 SEC risk alert explain.

I urge you, at some point, to look closely at both of those. Based on everything we've seen, I believe they are very pertinent and I'll be leaning heavily on them to explain my reasoning.

ETFs and options trading allow short positions in many individual securities to aggregate, roll forward, and be dispersed (and hidden) in index funds and derivatives. This is, effectively, refurbishing FTDs to manipulate the supply and drive price down. The potential consequences of this scheme was forewarned in 2006 by Patrick Byrne when his company, Overstock, was victimized by this process. Byrne worked with Wes Christian in 2006 to bring attention to the issue, but traction was soon lost in 2008 when a… *more immediate disaster*… popped up.

In the 2000's, High-Frequency-Trading (HFT) began dominating the markets. Citadel, possibly the world's largest HFT trading firm, AND FRIENDS got involved when realized that "predictable" returns can be made through ETF arbitrage.

Index funds like ETFs hold securities in certain proportions to track some index. To an Authorized Participant (AP) like Citadel, ETF shares are traded in baskets of 50,000, and they're exchangeable with securities in the proportions of the ETFs holdings. This is called creation (buying shares and creating ETF) and redemption (redeeming ETF for shares inside).

If there are differences in an ETFs trading price and it's Net-Asset-Value (NAV), even for a fraction of a second, this is a profitable opportunity for an AP. If NAV > ETF price, then the 50,000 underlying securities are worth more individually than as an ETF. APs can buy ETF, redeem ETF shares for its underlying shares, then sell for a profit. If NAV < ETF price, APs can create ETF shares by depositing the underlying securities into the ETF fund, which provides the AP with ETF shares to sell for profit.

APs are also allowed to sell ETF shares up to 6 days before creating them, as explained in the linked video. This is effectively a short position, and *because **there is no supply limit for ETFs** (and ETF creation/redemption has less regulation than in short selling equities) **this can theoretically be repeated and hidden in perpetuity.**

And they don't even need a locate. This is essentially legal naked shorting renamed *providing liquidity*.

So, for example, if the AP has reason the believe the NAV will decrease within 6 days, they can redeem ETF shares and

delay creation, hoping to profit from the decreased NAV. The video calls this “directional short selling” - basically a euphemism for legal naked short selling.

In most cases, this process is effective in reducing volatility by moving the “noise trading” into various ETFs. GME, clearly, is not most cases. I don’t think the system considered what happens when there are more shares owed than should be owned.

But does this really even happen? Or to a significant degree? From the Wharton presentation:

“ *Directional short selling is the strongest indicator of both short interest percentage and FTDs in ETFs.* “

This was likely practiced in a number of stocks. Or entire ETFs, such as XRT, which the presentation shows as having 77 million 13F (institutional) owners in 2017, despite only 11 million shares outstanding…

I argue that GameStop was the crux of Wall Street’s arrogance. I argue that existing data indicates naked short selling attempts to send GME into a death spiral by rolling *at least* double the number of outstanding shares in derivative short positions and FTDs, effectively diluting share price by inflating supply.

This would’ve been high-risk/high-reward with GME, because it’s 70 million shares outstanding is so small compared to other targeted companies. Blockbuster had 220 million. AMC has 450 million.

With such limited supply, these “refurbished” (rehypothecated, rolling) FTDs can be more effective in driving price down. However, if the “bankruptcy death spiral” fails, covering **years worth** of these positions gets *very* violent.

Why? Well the supply is comparatively low to begin with, and the creation/redemption process *during the death spiral* actually syphons real shares from GMEs float (I’ll explain how that works below). So the arbitrage process has moved a portion of the (already small) float into ETFs, and each share covered simultaneously increases demand and reduces supply. At some point, GME’s liquidity becomes bone dry because so many of it’s actual shares were converted into ETF shares.

Demand for GME keeps rising, but supply is already zero. Demand drives the price up, lack of liquidity drives the price up, APs scramble to find ETF shares, further increasing demand and decreasing ETF supply. However, this time, providing the GME to cover shorts **adds no extra supply**, so the price for anything containing GME goes vertical. The whole process starts feeding on itself in reverse, and I argue that this has already begun.

Chapter 1: ETF ARBITRAGE

The Game

[Blackrock’s explanation]

I’m the context of ETFs, arbitrage is simply profiting from the price difference of a security and an ETF containing that security. ETF shares trade on the market at market price, like an equity stock, but an ETF share actually represents an aggregate total of many stocks in a set proportion. The aggregate value of these equities in that proportion is called the Net-Asset-Value (NAV).

ETF shares don’t always trade at their NAV. When this happens, there is a potential for profit because 50,000 shares of the ETF == 50,000 shares of the underlying securities in price, but Authorized Participants (APs) can exchange them

nonetheless for a small fee. APs are usually big Banks and Market Makers (MMs): JP, Goldman, BoA, oh and Citadel.

This “exchange” is done through a process called creation and redemption. APs, *exclusively*, are allowed to do this, and APs are usually big Banks and Market Makers (MMs): JP, Goldman, BoA, oh and Citadel. For example:

Blackrock’s ETFs (iShares) are generally rebalanced 4 times per year: at the end of February, May, August, and November. So if GameStop goes to $350 in January after being balanced around $16 in November, the list I mentioned above (and more) can buy IWM, IJR, IWN, IJT, and all the other ETFs that GME is a portion of, break them open into their individual shares (this is done in 50,000 share baskets called Creation Units) and sell the GME inside. Because the ETFs proportioned GME at a $16 dollar price, the ETFs trading price didn’t go up as much it would if GME were proportioned in real time. NAV =/= ETF trading price, so while GME is rising, 50,000 ETF shares are cheaper than the 50,000 shares they’re redeemed for, because of the GME inside.

Why are they allowed to do this?? According to the SEC, the answer is… Liquidity Oh, and somehow also efficiency and transparency.

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Let’s take a step back for a second. So some portion of GME’s 70 million shares are purchased by ETF funds, like BlackRock’s iShares, in order to issue the first ETF shares. Then, APs come in and either 1) put some of those GME shares back or 2) take more out, based on the NAV of the ETF. Now, and this this important, **because APs PROFIT from volatility through arbitrage, they have an incentive to favor creation over redemption.**

If, as an AP, you buy the shares from the market (or just naked short them), and have them trade as ETF instead, you decrease supply of the security. This increases volatility, which creates more opportunity for arbitrage - i.e. more opportunity for profit. AND if you have more shares for creation/redemption, you have better control over the prices of both the ETF and it’s securities.

Did I mention that Citadel is the world’s largest HFT firm?

Anyway, there is a very strong incentive to take shares from securities and have them trade as ETF instead. And I’d argue that at some point, the “providing liquidity” excuse becomes void, because the AP was the one who diminished the liquidity in the first place.

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Well what happens when an 7% of an ETF contains shares of a company you intend to bankrupt?

This 2019 Presentation at Wharton, as linked above, briefly talks about XRT. I’ve linked it a few times now, *please* watch or save that video.

The presenter notes that the example is extreme, and I’d say it’s borderline heinous. The SPDR fund had issued ~11 million shares of XRT in 2017, but the 13F filings added up to *77 million shares*. There had been 66 million shares created, but not redeemed. AP’s have the **exclusive** ability to create shares, and in 2017 the settlement period was 2 days instead of 6…

The presentation also discusses an AP’s exemption allowing them to sell ETF shares up to **6 days** before depositing the required securities into the ETF fund to create the basket. The presenter discusses certain cases where ETFs are more liquid than their underlying securities, like GME, and the ETF shares seem to be continually created without ever being redeemed. This led to XRT.

So of those 77 million XRT shares, say 6 % were GME (not sure exactly what it was at the time but it's 6.75% now). That represents **4.62 million** shares of GME trading in XRT baskets. That represents almost 10% of GME's reported float, from this one ETF alone.

And *where* are these shares reported, exactly? I'll let BlackRock tell you:

** "any securities accepted for deposit and any securities used to satisfy redemption requests will be sold in transactions that would be exempt from registration under the Securities Act of 1933, as amended (the "1933 Act")." **

As I'm sure you guessed, they're off the books.

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To recap:

When institutional investors and retail investors place bids for ETF shares, APs (banks and citadel) can sell ETF shares that they don't have to "provide liquidity". Then, within 6 days, the AP must deposit the sold securities into the ETF Fund.

BUT!

APs can (and have been known to) profit from expected decreases in the NAV of the ETF by waiting up to 6 days to deliver the shares. Until settled, this is a naked short position, and it's not reported in the short interest. Oh and one more thing,

GME is in over 60 ETFs. Go to "Top ETF" under "Ownership". 68 listed ETFs right now. An AP can short XRT today, and settle by shorting IWM next week, then GAMR, then XRT again, then IJR…. you get the picture.

//

And it keeps getting worse.

How exactly do you think this creation/redemption process is carried out in, say, Citadel? Is there a creation/redemption department with a few dozen people monitoring all these ETFs, the underlying securities, the NAV, and the incoming orders - looking for price discrepancies? A few hundred people? Just Ken-bo? Is Kenny G the Michael Jordan of arbitrage?

Nope. Citadel is all about HFT. It's algos.

From Investopedia in 2020 -

"Another way these [HFT] firms make money is by looking for price discrepancies between securities on different exchanges or asset classes. This strategy is called statistical arbitrage, wherein a proprietary trader is on the lookout for temporary inconsistencies in prices across different exchanges. With the help of ultra fast transactions, they capitalize on these minor fluctuations which many don't even get to notice."

So, to be clear, Citadel, the world's largest HFT firm by ~20x the AUM of second place - the very same firm that clears over 50% of RH's trades and gets almost as much total trading volume as the entire NYSE, does the vast majority of that volume with lines of code, stuffed into thousands of black boxes in some fortress in the middle of nowhere… They buy *yachts* with this creation/redemption system. Do you think these lines of code secure a locate when they short shares to "provide liquidity"?

((Side note on another gem from that link:

“HFT firms also make money by indulging in momentum ignition. The firm might aim to cause a spike in the price of a stock by using a series of trades with the motive of attracting other algorithm traders to also trade that stock. The instigator of the whole process knows that after the somewhat “artificially created” rapid price movement, the price reverts to normal and thus the trader profits by taking a position early on and eventually trading out before it fizzles out.”

So yeah, no wonder we’ve had dozens of days with insane swings that ended up within 2 percent of open. Those RH orders pile up on Ken’s computers and he can basically execute them however and whenever he’d like. I digress.))

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GameStop

Back to GME in January. Ryan Cohen stepped in and at one point, GME did almost 200 million volume in a day. As buy orders come in, market makers like Citadel had to add liquidity from somewhere. After all, GME’s 70m shares outstanding pales in comparison to most other stocks in XRT, and just in general. AMC has 450m. NOK has 4.7 billion.

So in a perfect world, these HFT algos buy ETF shares from the market, redeem them (often from BlackRock, who owns iShares, or StateStreet who distributes SPDR ETFs), and sell the GME. Remember - the number of ETF shares outstanding can fluctuate, but not GME (without shorts or moves from GameStop), so this would reduce the total number of shares of the ETF and *restore* the shares of GME that the process had originally depleted.

So unless I’m mistaken here, keeping in mind Citadel itself clears almost the same volume as the entire NYSE - to provide liquidity and decrease volatility as buying pressure go up (aka delay the MOASS), should be buying ETF shares to put the GME back. So ETF ownership should **decrease** as they’re bought up and broken apart. If the ETF ownership stays the same, the extra liquidity is more likely to be short positions, naked or otherwise (to be covered the next day or who knows when).

Well, somehow, from January 15-March 31, ETF institutional ownership **went up**.

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Here they are

I did some math.

I used FINRA numbers and the official ETF issuer’s websites (SEC requires them to provide this) to find 1) total shares outstanding today in May (from issuer), 2) institutional ownership from Jan and March (FINRA), 3) the percent GME (issued), and 4) who bought shares (and who did **NOT** buy shares).

I looked at about 30 of GME biggest ETFs are picked out the ETFs with the most shares floating around. These account for the majority of total volume. Here are some of the standouts, as of, May 31:

IWM - (0.44% GME) - **300m shares outstanding and 345m institutional ownership.**

345m IWM shares represents 1.5m GME shares.

IJR - (1.15% GME) - **629.7m shares outstanding and 444m institutional ownership.**

1.15% of 629.7m shares is 7.24 million shares of GME.

FNDX - (1.01% GME) - **128.55m shares outstanding and 100.4m institutional ownership.**

Another 1.3 million GME.

last but not least

Wedbush back at it again with **GAMR** - (1.42% GME) - **70.77m shares outstanding and 190,000 institutional ownership.**

Another million.

Honorable mention goes to XRT, with 15 million institutional owners holding a total 1 million GameStop shares, though XRT has only 9m shares outstanding.

Adding up just the ETFs I looked at, there are over 20 million claimed owners GME via ETF

That 20m number doesn't even include retail ownership in ETF, short interest, "family offices" (like Archegos) that don't have to report their positions to the SEC, any shares from ivestco ETFs (they have many shares outstanding but no reported GME weight despite owning GME, per fintel), or any trades settled in ex-clearing.

It also excludes short positions extended by options and other derivative instruments, which I'll talk about in the next post.

This is just the tip of the Glacier.

Even the at 20 million at face value means that, as of May, there is a **float sized chunk** of GME trading as ETF shares.

I'd estimate, just through the ways around regulation that an ape can find on the internet, the number is *at least* twice that. Byrne mentioned that it could be closer to 5x the reported numbers.

When Ryan Cohen simultaneously mapped GameStop's future and gobbled up 9 million shares, I think shorts piled into ETFs, particularly BlackRock's iShares. They got a glimpse. In light of this, I think it's *very* telling that they hodled. Hodled Citadel, by the balls, that is.

Oh, and somehow, almost every ETF I looked at miraculously **increased** in shares outstanding and institutional ownership 2020-2021, even from Jan to March. Despite the fact that the NAV was consistently higher during those periods…

Among the buyers were Morgan Stanley, Bank of America, Goldman Sachs…

So who were the sellers?

Acronym Index and Glossary

Because I always wish the SEC included these, for the Fed if nothing else

ETF - Exchange-Traded-Fund - Simply put, ETFs are a hybrid between funds and stocks. They, like any fund, hold some portfolio of securities. And like any stock, they trade as shares on open exchanges. For example, SPY is an ETF with a portfolio designed to mimic the S&P 500 index.

NAV - Net-Asset-Value An ETF's NAV is the value of the funds assets, minus liabilities. Regarding ETFs, the NAV is the value of the underlying, as opposed to the trading price of ETF shares.

FTD - Failure-to-Deliver - after the sale of a security, the seller (believe it or not) has 3 days to deliver the security to the buyer, otherwise the share is deemed failed-to-deliver - a FTD.

AP - Authorized Participant - "An authorized participant is an organization that has the right to create and redeem shares of an exchange traded fund (ETF)….When there is a shortage of ETF shares in the market, authorized participants can make more. Conversely, authorized participants will reduce ETF shares in circulation when the price of the ETF is lower than the price of the underlying shares. That can be done with the creation and redemption mechanism that keeps the price of an ETF aligned with its underlying net asset value (NAV)."

MM - Market Maker - Market Makers, very generally, oversee markets and quote bid/ask prices to create a spread. They stand ready to buy or sell in their market, and they have algorithms coded to hedge these transactions and profit from arbitrage along the way.

HFT - High-Frequency Trading - "High-frequency trading, also known as HFT, is a method of trading that uses powerful computer programs to transact a large number of orders in fractions of a second. It uses complex algorithms to analyze multiple markets and execute orders based on market conditions. Typically, the traders with the fastest execution speeds are more profitable than traders with slower execution speeds…In addition to the high speed of orders, high-frequency trading is also characterized by high turnover rates and order-to-trade ratios. Some of the best-known high-frequency trading firms include Tower Research, Citadel LLC and Virtu Financial."

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TLDR:

Various "financial instruments" can be combined to create *synthetic* positions. These often include options, and, with respect to the positions they aim to "synthesize", they are frequently cheaper and carry the benefit nondisclosure. This SEC risk alert from 2013 discusses the potential for the combination of 'profit and nondisclosure' to promote dishonest (and possibly fraudulent) bookkeeping. This post discusses these positions, the bookkeeping tricks, how hedging is involved, and how it might all relate to GME.

If you like taking things apart to see how they work, you're in the right place. If you prefer to throw things at the wall to see how they break, the final chapter should be done in a day or two. It's the coolest, imo

A Step Back

This post contains the second of 3 chapters. **Chapter One, on ETF arbitrage**, discussed AP's crucially important role in supplying market liquidity, their reliance on ETFs to fulfill this role, and the **20 million share tip of the Glacier** that merely the *reported* ETF shares outstanding represent.

It was technical and complicated, I know (there were some fantastic questions in the comments, however, so keep em coming). Unfortunately, this post, too, is technical and complicated. And long. Imo, I *have* to start with the boring stuff, because, frankly, the *very fact* that it is so boring is partially what makes it so dangerous. Chapters One and Two examine the moving parts. Chapter 3 will zoom out and look at the whole machine.

To be clear, I am *very intentionally* presenting the information in this specific order - from granular to grand. *Everyone* knows something is wrong when you see smoke, but to truly understand the problem, you *must* try to understand the moving parts. Otherwise, when the machine's owner shows up and says - *ehh, it was steam* - you might go back to work and end up smelling like smoke for 6 months. Or worse.

Keeping that in mind, I hope you stick with me - it will make sense in the end.

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If you grudged through **Chapter One**, hopefully you got a sense of how APs oversee the markets like a referee, moving shares from ETFs into securities (and vice versa) to meet demand wherever it shows up. **This post, by u/made_thisforhelp** brilliantly explains this process with a simple example.

APs have a responsibility to meet increases in buying or selling pressure via so-called *liquidity provision* mechanisms, and, "Traditionally, authorized participants are large banks, such as Bank of America (BAC), JPMorgan Chase (JPM), Goldman Sachs (GS), and Morgan Stanley (MS)." - Investopedia.

Citadel Securities, LLC is *also* an AP in many markets, and before discussing them further, I think it's **vital** to consider them in light of a few important facts -

1)Citadel Securities takes pride in being able to "provide continuous liquidity - every second of every trading day." per their founder. They take this responsibility very seriously, and through arbitrage, it is *extremely* profitable for them.

2)Citadel Securities is among the largest, if not **THE largest** HFT firm in the world. They handle that remarkable volume with lines of code stuffed into black boxes - stacked by the thousands in some data center - monitoring exchanges around the world and trading in microseconds to net pennies on price discrepancies through arbitrage.

3)Liquidity provision (the providing of liquidity) regulations were written by the SEC, and I *highly* doubt that all of the provisions (*and* their amendments) were proposed internally. It is far more likely that big banks (who had watched Citadel do this for years before the SEC gave in and let them have HFT desks) and Citadel suggested the changes be made to improve their *beloved* liquidity power. Naturally, they omitted the 'free money' part.

To be fair, I don't know wether the SEC was complicit with, or ignorant to, the implications that this level of control over liquidity provide. Either way, Citadel is **not** just Ken standing on a balcony and yelling out trades. A "citadel" is, by definition, a *fortress* - in this case the fortress is some data center. **They make money by filling your buy order with a cheaper version of whatever you're buying.** That *is* arbitrage: buy low, sell high.

These facts are important to consider in unison. When buyers flood the markets - arbitrage provides a profit opportunity, HFT is designed to seize that opportunity as many times as possible, and the SEC calls that opportunity a *responsibility* in the name of providing liquidity.

In practice, when liquidity is needed, the black boxes monitor markets and look for arbitrage profit opportunities. **This is what the black boxes are told to do.** My last post discussed one of these opportunities via ETF creation/redemption, and here I discuss another: options.

Chapter Two: Options and Hedges

The 3 Levels

If you read the intro, I apologize for rambling on about Citadel but this is why I did it -

We're about to get down and dirty and it might get dense pretty quick, so while you're flexing that wrinkle try to pretend you are *the eye of Citadel* - an etherial codebender controlling a Market Maker, Authorized Participant, and the biggest, fastest HFT firm on the block - you oversee the markets, create the spreads, and distribute liquidity where its needed - all the while looking for split-second arbitrage opportunities to profit from.

Also some of you apes are probably levels beyond this stuff so read (or not) as you please

Level 1

A single options contract has a value, called a premium, that is derived from the price movements in some security. Options are bets for/against a stock's trading price to reach some **strike price** by a set expiration date. You can bet it'll go up (call) or you can bet it'll go down (put). Note though - these are *contracts*, not stocks - they have an assigned expiration date and their ownership is **bilateral**, meaning every contract, until settled, represents **open interest** between the two parties.

Specifically, a **call** option is the right to *buy* 100 shares for the strike price and a **put** option is the right to *sell** 100 shares at the strike price. And because these are contracts, positions can be opened by buying *or* selling a call *or* put.

Those are the four trades in Level 1 of this hierarchy I just made up. Buy/Sell a Call/Put. It's the most innocuous level, yet its important. Consider *selling* a call - the buyer owns the right to buy 100 shares, meaning you have an *obligation* to deliver those 100 shares.

Some traders mitigate the risk of this obligation by "covering the call", leading me to -

Level 2

"Covering a call" is a hedge against the sale of a call. A simple example to follow will make this smoother -

Call seller (S) simultaneously sells a call for XYZ and buys 100 XYZ shares. This way, S can deliver the 100 shares if the call buyer (B) exercises the call option. If B does *not* exercise the call because the price of XYZ fell, S sells the XYZ he bought to "cover" for a net loss (that is equal to the premium he received for selling the call.

((Note that the *premium* B payed for the option is calculated such that this "covered call" position is perfectly hedged.))

In English, options can be hedged with shares. In fact, **delta-gamma hedging** is common Market Maker practice.

P.s.) if you've ever heard the term "gamma squeeze", this is what the "gamma" refers to. Rapid call buying **forces** Market Makers to buy shares to hedge, and the buying pressure forces the price up. P.s.s.) Calls *expiring* ITM/OTM, as far as I understand, shouldn't really matter unless those investors are buying more calls to extend their position, or… the marker maker is a little late on hedging..

Level 2 is the bilaterally hedged option - using (s) to hedge position (L) or vice versa

Buying calls is a long position (L), its bullish. Thus, selling calls is a short position (s).

Conversely,

Buying puts is a short position, its ish. Thus, selling puts is a long position.

The nature of the options position (L)/(s) determines the nature of its hedge, and the hedge can consist of a (L)/(s) trade in the security *or* the option.

For example, S sells *puts* (L) on XYZ. He can hedge this position by shorting x number of XYZ shares (s), selling XYZ calls (s), or buying XYZ puts. The *degree* of the hedge would depend on the strike prices (or x).

Market Makers are constantly hedging against options trades. Its another responsibility they enjoy. Because, through arbitrage, any trade they're responsible for is a potential profit opportunity.

The essence of hedging is combining a long position with a short position. Well that's pretty broad so let's step it up a notch to -

Level 3

The compound hedges. The synthetic positions. If you're still reading after that last section, I'll just save you the headache on this one.

Just know a few things. Generally, that (L) hedges (s) and vice versa - and (L)/(s) could be any combination of options, equities, etc. Also, "synthetic positions" mimic the risk profile of other positions, and creating a synthetic position is often cheaper than closing a real one.

Oh and one last thing, **any shares CLOSED FUNDS use for hedging are NOT reported, as of July 1, 2000.

Naturally, it's in the fine print at the bottom. **This article** discusses, however:

"The SEC excluded closed-end funds from the requirements of Rule 407(i). It noted that the **special structure**, **regulatory regime** and **disclosure obligations** of registered closed-end funds **makes the new disclosure requirements less useful to fund investors**."

lol how dare disclosure and regulation made something less useful

"In addition, the SEC noted that the **compensation scheme** often associated with closed-end funds is either inapplicable to the new disclosure requirements (as shares are not typically a component of incentive-based compensation), or if compensation does occur in the form of shares, it is often difficult to hedge these shares. Thus, Congress' concern about the undermining of the objectives of long-term compensation through hedging is unlikely to be raised in the case of closed-end funds."

Not sure what the "compensation scheme" was/is, but I'd guess it's either **front running** with HFT or the arbitrage/liquidity provision stuff.

Oh, and unless the big banks swallow the profit and file their HFT trading desks as separate, closed funds - there's only one big league AP with a closed fund: Citadel Securities.

Here They Are

If, like me, you've lurked on r/superstonk for a while, you probably remember seeing some stuff about some weird puts or something. I can't see into the past, but we can try to break things down a little -

GME options data is.. well, just go look at it.

I've been watching it for a while and I can tell you - there are far more expiration dates (potential contracts) right now than there were 3 weeks ago. The suspicious dates, however, are **7/16** and **1/21/22**.

The open interest (OI, total number of contracts yet to be settled) for puts expiring on those two dates is over 650,000. Multiples of other dates.

Even weirder, almost 350k of that OI is at $0.50 and $1.00 strike prices. Those strikes prices **don't even exist** on any other dates.

So what can this mean?

Who tf knows. It is really weird, I'll say. I mean, can those puts even *be* relevant at $0.50?…

//

Well, **this SEC risk alert from 2013** discusses one way they could be. **This is highly speculative**, but, I think, worth mentioning.

That document discusses two (illegal) practices in regard to covering short positions with options. **Buy-Writes** and **Married-Puts**.

Apes sniffed Buy-Writes out pretty quick, which I'd imagine pissed somebody off beyond belief. The Buy-Writes were those deep ITM calls that were executed immediately, and they functionally serve to rent the Market Maker's 35 day FTD extension to some firm that was short.

The FTD settlement dates are reviewed in that document, too - T+3,6 or 35 calendar days. But I just wanna note, directly after a social media avalanche and GME on the news everyday, whoever (Citadel or not), was conducting those Buy-Writes either has titanium balls or is painfully desperate. I mean I found that at the top of the search page.

So Buy-Writes are sneaky-ish and add 35 days, but **Married Puts** work slightly differently. From what I can tell, they're less honest, harder to prove, and can roll FTD's over indefinitely. Yeah…

To prevent a FTD, a firm buys a put (s) *and* XYZ shares (L) to hedge. The firm uses the XYZ shares to settle the fail, but on the books they're still marked as **married** to the put. The firm can then sell the shares (again), keep the put, and maintain the short position until the puts expire.

This leaves the put behind, though. So could those 350k cheap puts be *divorced* puts?

I kinda doubt it, but barchart let's you see each contract's price history, and I think it's worth mentioning that over half of those 350k puts at $0.50/$1.00 were purchased between Jan 24 and Feb 2. And these worthless puts *increased* in price by up to 1000% during that time.

That's a lot of demand for worthless puts, and considering the only real function of the *put* in Married-Puts is a placeholder to prevent a FTD - if I were short 100 million GME shares, I might buy as Married-Puts as I can, as cheap as I can, just so I can resell the shares and prevent the losses.

Also, "put options can be extended very cost-effectively. If an investor has a six-month put option on a security with a determined strike price, it can be sold and replaced with a 12-month put option with the same strike price. This strategy can be done repeatedly and is referred to as rolling a put option forward." - **Investopedia**

For this reason (and this is highly speculative), the high activity on puts at such low, OTM strike prices, could suggest involvement in a larger open position. Possibly a position from years ago, when some group of people thought they could profit from selling 35 million GME shares at 50 cents each.

Honestly I'm not sure, and I don't think it matters all that much.

Don't forget that a share recall sucks everything back in. All the IOUs, the positions rolled forward, the shares re-re-reborrowed…

You know, when I started down this rabbit hole, I thought the best answer to the question would be some complicated formula or 300 page document. I no longer think this. These detailed hiding places show that it's *possible* to hide shares. All I've done is confirm what you already know - they can put shares wherever they please and never tell anyone.

In fact, that *is* liquidity. Credit. Flexibility. That's why, I think, the answer to the problem may have looking us right in the face since January.

TLDR:

The system is rigged in favor of HFT firms. Because computers are really good at finding derivatives for cheap to hedge sales for profit, naked short selling is no longer *part* of the system, it **is** the system, short term, over and over and over. What we're seeing might be the product, and possibly the unraveling - of that system.

Man that was melodramatic. Hey, I wouldn't believe me either, to be fair. I still really don't believe it.

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Acronym Index and Glossary

Because I wish the SEC would include these, for the Fed if nothing else…

ETF - Exchange-Traded-Fund -

This is a more detailed explanation than the rest, because ETFs are *incredibly* important to understand.

An *Exchange-Traded-Fund* is a fund who's portfolio holdings is represented and traded on open exchanges via shares of the fund: ETF shares. Simply put, ETFs are hybrids between funds and stocks. They, like any fund, hold some portfolio of securities. And like any stock, they trade as shares on open exchanges. The fund's portfolio is typically designed to track some index or sector. Thus, an investor with some opinion about the ETF's portfolio can trade the ETF shares to eliminate some of the risks involved in trading single equities.

The *price* of ETF shares is determined at market value, based on their trading in the market - like any equity stock. The *value* of ETF shares is called their NAV, and when NAV differs from price (which is always true in some ETF, somewhere in the world), a profit opportunity exists via arbitrage (see **Chapter 1 for more**.

ETFs also provide a source of dynamic liquidity in the markets. This is because Authorized Participants (APs), acting as 'referees', oversee the markets and allocate supply to meet demand. **APs are authorized to *create/redeem* ETF shares *with/for* representations of the ETF's portfolio.** This mechanism is integral to liquidity provision, and helps align ETF share prices with their NAV.

The "creation/redemption" mechanism mentioned above is the bridge between *ETF shares*, "*liquidity*", and *particular securities*. For example:

Say demand increases for security XYZ, thus increasing the trading price of XYZ shares. XYZ's increased price might mean that NAV > "trading price" for some ETF containing XYZ. APs, who are are responsible for providing supply of XYZ, can then redeem a "basket" of value equal to 50,000 ETF shares in exchange for 50,000 shares representative of the ETF's portfolio. Only APs are authorized to do this.

Don't let the numbers and letters confuse you, it's simpler than it sounds. For an AP: 50,000 ETF shares = 50,000 individual security shares in *price,* but not in value. When they differ in value, the AP can profit. Of course, the liquidity responsibility ensures that the AP is always buying the cheaper of the two and exchanging for profit. SPY is an ETF with a portfolio designed to mimic the S&P 500 index; XRT is designed to track the retail sector.

NAV - Net-Asset-Value An ETF's NAV is the value of the funds assets, minus liabilities. Functionally, for ETFs, the NAV is the value of the fund's portfolio, and because ETFs are only rebalanced a few times yearly, the *market price* of shares trading on open exchanges often differ from the NAV of those shares.

FTD - Failure-to-Deliver - after the sale of a security, the seller (believe it or not) has 3 days to deliver the security to the buyer, otherwise the share is deemed failed-to-deliver - a FTD. FTDs should be rare, because they can build up and cause systemic issues, as Patrick Byrne explains.

AP - Authorized Participant - "An authorized participant is an organization that has the right to create and redeem shares of an exchange traded fund (ETF)….When there is a shortage of ETF shares in the market, authorized participants can make

more. Conversely, authorized participants will reduce ETF shares in circulation when the price of the ETF is lower than the price of the underlying shares. That can be done with the creation and redemption mechanism that keeps the price of an ETF aligned with its underlying net asset value (NAV)." APs include Morgan Stanley, Goldman Sachs, Bank of America, JPMorgan Chase, and Citadel Securities. BlackRock describes APs as referees, monitoring markets to allocate demand to meet supply - resulting in better liquidity and decreased volatility.

MM - Market Maker - Market Makers, very generally, oversee markets and quote bid/ask prices to create a spread. They stand ready to buy or sell in their market, and they have algorithms coded to hedge these transactions and profit from arbitrage along the way. The are similar to APs in that they both monitor markets and ensure trades have counter-parties, however, the MM acts as a primary source of the APs information - MMs quote bid/ask spreads, and APs react to these spreads (in real time). This allows the MM to have more direct access to (and influence over) bid/ask quotes in their particular markets, however they rely on the AP to provide market liquidity via ETF creation/redemption.

HFT - High-Frequency Trading - "High-frequency trading, also known as HFT, is a method of trading that uses powerful computer programs to transact a large number of orders in fractions of a second. It uses complex algorithms to analyze multiple markets and execute orders based on market conditions. Typically, the traders with the fastest execution speeds are more profitable than traders with slower execution speeds…In addition to the high speed of orders, high-frequency trading is also characterized by high turnover rates and order-to-trade ratios. Some of the best-known high-frequency trading firms include Tower Research, Citadel LLC and Virtu Financial." This is *how* MMs and APs profit from volume, HFT algorithms scan for arbitrage opportunities.

OTM/ITM - Out of the Money / In the Money - ITM/OTM refers to an option's strike price in relation to the underlying's trading price. ITM options hold inherent value (ITM call = strike < trading price; ITM put = strike > trading price). OTM options have no inherent value and expire worthless (OTM call = strike > trading price; OTM put = strike < trading a price). There is also *deep* ITM/OTM. This simply means the option's strike price is relatively *distant* from the underlying's trading price. Options with strikes *near* the underlying's trading price are said to be At-the-Money (ATM).

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Prior Chapters

CHAPTER 1: ETF ARBITRAGE

CHAPTER 2: OPTIONS AND HEDGES

Preface

First of all and for the record, this ape **loves** his country . I have no doubt that some apes love their's more, and I'd say that's awesome. I'd probable even say *c'est bonne* (and be rightfully mocked)

It's *because* I love my country, that I am concerned. Deeply.

And despite the fact that my *entire* understanding of the financial system is merely 6 months old and limited to what I can find online - there are much older, much wiser, and much warier opinions than mine. Tendies or not, I **absolutely do not** wish for disaster or advocate wishing for disaster.

Secondly, I really don't advocate for *anything* except using your own brain, shiny or not, to come to your own conclusions. **None of this, including my previous posts/comments, is financial advice or intended to be defamatory in any way.**

This series is essentially a brain-dump - resulting from my attempts to identify what the hell, *exactly*, has been going since January.

Why listen to me? - You shouldn't. Not at face value at least. I have no special insight nor expertise. I like logic and puzzles. That's all.

I may have gone wrong here, way way off even - I'm just not exactly sure how. *insert Michael Burry - 'Big Short' quote* So if you find holes to punch, *please*, punch away. We're all learning here. And frankly, in many ways, I'd love to be wrong on this.

Chapter 3: The Machine

Where we Stand

Chapter One dove into ETFs, and the ever-growing role they play in market liquidity. In principal, the relationship between ETFs/underlying securities is like a hydraulics system. Securities have some of their supply distributed in various ETFs, and the buying pressures in these different markets are the pistons *squeezing* their respective market's liquid. As pressure (demand) builds in a given market, APs can dial pressure up in the ETF markets to force liquid wherever it's needed. *APs can only add pressure.* They cannot reduce buying buying pressure, except indirectly by providing supply.

This *pressure control* system is vial to keeping markets at bay and keeping ETFs aligned with their NAV. Overall, these are good things.

Chapter One explained the *mechanism* behind that *pressure control* system, and how APs profit from it through arbitrage: if there are price discrepancies between ETF shares and their underlying, APs are profiting on it.

Chapter Two looked at options trading and its role in hedging. Both equites and options have Market Makers that hedge their sales with options, and I mentioned the fact that options create "synthetic positions" that mimic the returns of some other position. This creates yet another arbitrage opportunity, as price discrepancies in the synthetic positions and their *analogs* can be profitable.

A few apes mentioned in chapters One and Two that a certain… (*don't say je ne sais qoui, don't say je ne sais quois*…) 'something' was missing. Like trying beer for the first time and it's flat. I'm sure others knew what I was hinting at, and I'm sorry if it felt like I was pandering. I'm going for *no ape left behind*, and I think the overall machine is far better understood in light of it's inner workings.

Je Ne Sais Quois

Okay all five question words let's go -

Who?

Citadel, *en masse*: an Authorized Participant, Market Maker, Broker Dealer, Hedge Fund, and probably a dozen other things including (probably) the world's largest HFT firm. They account for **almost 30% of ALL U.S. equities volume and almost half of retail volume**. Oh and in 2020 they paid RobinHood (10x more than any other brother) for order flow, buying the rights to clear over 60% of RobinHood's trades. (can't post RH link)

What?

Wallstreet's God. Naturally, they adopted the triumvirate of Father Fed, the many (some prodigal) Sons, and the Holy Ghost of Liquidity - always there in the background to fill your purchase orders. Yeah, Citadel accounts for close to half of that Liquid Holy Ghost.

When?

For the last 5 years at least, but particularly in January 2021, and *specifically* on January 27th. Ken stated in the **Congressional Hearing** that, "on Wednesday, January 27, we executed **7.4 billion shares** for retail investors."

Where?

Primarily on RobinHood, I'd imagine. At first, at least. Then, a few nanoseconds later, processed through Citadel's network of black boxes to find a better price than you, then sell to you.

How?

THIS is why I started with the boring details.

I get to skip this part. Arbitrage is how. Via ETF, forced hedging, all those ways we went through

now for the coolest, most ignored question word

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Why?

(With a splash of how?)

Arbitrage is great, but it has one major problem. It doesn't make very much money, *per trade*. You're only netting small differences, because these arbitrage trades *should* be for equal things. **The only reason arbitrage works is because of inefficiencies in pricing.** This is where arbitrage meets its best friend: High Frequency Trading.

Investopedia includes four types of arbitrage among the 6 listed money-making strategies, one of which is *volatility* arbitrage. I think Ken said it in the Congressional Hearing, but I'm not sure -

HFT firms make SIGNIFICANTLY more money in VOLATILE markets.

I mean I can't believe I have to point this out, someone must be saying something, but **this creates a CLEAR CONFLICT OF INTEREST when the HFT firm is an Authorized Participant.**

Why? because, **APs CONTROL THE LIQUIDITY in the ETF market, and, indirectly, the markets of the underlying securities.**

Maximum volatility = maximum profit per arbitrage trade = *$$$$$$$$* for HFT/AP firms

It's a simple move and I mean - just pick a couple of GME's ETFs and look at ownership since 2015, I'd guess it's up 500% on average, probably more. Whether this was natural (as underlying price decreased) or intentional, I don't know. *But*, if there happens to be both 1) more volume in the underlying than in the ETF and 2) underlying NAVs consistently dropping lower than ETF price, APs have an opportunity for **massive profit**.

So to earn that $200m bonus, you look for an ETF with *just* the right blend of wimpy and popular. Then have your trading firm buy ETF all day, or turn the AP's "gobble ETF shares" dial up a few notches, maybe tell your buddies how cool the fund is, anything you can to increase buying in the ETF. AP is *required* to siphon supply from the underlying to meet the ETF demand.

Easy. Done.

Over time, your own ETF buying increases the price of your own holdings. And these are *funds*, they're meant to be stable. And many of them are illiquid - so when ETF buyers show up, APs likely *need* to siphon underlying shares. All this *siphoning* makes the underlying more volatile, so when you're responsible for putting the shares back to meet demand, you can take your sweet time and suck as much money as possible from regular investors. Every millisecond counts.

And as long as you keep buying ETF, or convincing someone to buy ETF, after each ETF rebalancing, the ETF inflation will dictate that ETF > NAV, *forcing* you, as an AP, to buy underlying until they equate (then maybe you buy again). I think you can see how this quickly becomes a vicious cycle.

Do I sound crazy yet? Oh, *long time ago?* I know, I've felt crazy for weeks. I cannot prove that this happens, I can only say that the system exists such that it is possible, and very profitable. And frankly it's very likely that the cycle is a natural byproduct of increasing interest in ETFs. Whether or not it's intentional:

"ETFs have grown to $131.2 billion in assets under management by 2016, up from only $3.9 billion in 2007 representing a

growth rate of 3300% over ten years."

That information is remarkably hard to find, but **this Harvard paper** mentioned it.

Oh wait, lol no it's not hard to find - **Statista (not sure if reliable but looks legit)** reported -

"he assets under management (AUM) of global ETFs increased from 417 billion U.S. dollars in 2005 to over **7.7 trillion U.S. dollars** in 2020. The regional distribution of the AUM of ETFs was heavily **skewed towards North America, which accounted for around 5.6 trillion U.S. dollars** of the global total."

Holy Liquidity Mother of Fed, that is a f*cking ton money. *5.6 TRILLION DOLLARS worth of North American stocks trading instead in ETFs. All that illiquidity, all that volatility...* see what I mean?

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GameStop, The Machine, and The House of Cards

I took some Philosophy in college. Non-metaphorically, even. And if you've ever taken a Philosophy class, you've likely asked yourself why everyone in it thinks everything has to be an argument all the time.

Well, as I would for my apes, I'll stand up for my fellow philosophers by saying that sometimes - and *particularly* when you don't know what the hell you're talking about - the safest way to move forward is to:

First, break things down into **facts**, or get as close as possible.

(Descartes currently holds the record at one… though, naturally, it's disputed. Getting all the way to 0 earns you a clinical diagnosis, and trying to prove it earns you *at least* one more, and possibly a PhD)

Then, use **logic**, as best as you can, to propose *new facts* based on the old facts. They call these new facts 'conclusions', I think. Or 'heresy', maybe, depending.

The *goal* of an argument, formally, is to reach a valid conclusion. The *utility* of these conclusions is... something non-philosophers bother with.

Valid conclusions are reached by using facts and logic mathematically. If the facts are verifiable and the logic is sound, the conclusion is valid.

So why is everyone always arguing? Philosophers, a significant portion of college kids, and, ironically, HFT algorithms, *think* in the structure of argument.

Alright lets try one -

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Facts

Quotes directly from the SEC :

"Short selling is used for many purposes, including to profit from an expected downward price movement, **to provide liquidity in response to unanticipated buyer demand** or to hedge the risk of a long position in the same security or a related security."

and how *should* this done?

"Typically, when you sell short, your **brokerage firm loans** you the stock. The stock you borrow comes from either the firm's own inventory, the margin account of other brokerage firm clients, or another lender."

and if, say, there are no shares to borrow anymore, where else can shares be found?

"In a “naked” short sale, the seller **does not borrow or arrange to borrow** the securities in time to make delivery to the buyer within the standard three-day settlement period. **As a result, the seller fails to deliver** securities to the buyer when delivery is due (known as a “failure to deliver” or “fail”)."

and, um, *why* is that legal?

(try not to read this in Ken G's voice from the first congressional GameStop hearing btw... If you don't remember how it sounded, its eerily similar to Michael Scott - but really nasal like Steve has a terrible cold, and choppy like he's short circuiting from the cognitive dissonance.)

"There may be legitimate reasons for a failure to deliver. For example...delays can result from transferring securities in physical certificate[obsolete] ... A fail may also result from “naked” short selling. For example, **market makers who sell short thinly traded, illiquid stock in response to customer demand may encounter difficulty in obtaining securities when the time for delivery arrives.**"

“"Naked” short selling is **not necessarily a violation of the federal securities laws** or the Commission’s rules. Indeed, in certain circumstances, “naked” short selling contributes to market liquidity. For example, **broker-dealers that make a market in a security generally stand ready to buy and sell the security on a regular and continuous basis at a publicly quoted price, even when there are no other buyers or sellers.** Thus, market makers must sell a security to a buyer even when there are temporary shortages of that security available in the market. **This may occur, for example, if there is a sudden surge in buying interest in that security, or if few investors are selling the security at that time. Because it may take a market maker considerable time to purchase or arrange to borrow the security, a market maker engaged in bona fide market making, particularly in a fast-moving market, may need to sell the security short without having arranged to borrow shares. This is especially true for market makers in thinly traded, illiquid stocks as there may be few shares available to purchase or borrow at a given time. "**

Speaking of the hearing, here's another fact: Ken stated in the Congressional Hearing that, "on Wednesday, January 27, we (Citadel) executed 7.4 **billion** shares on behalf of retail investors. To put this into perspective, on that day, Citadel Securities cleared more trades for retail investors than the entire average daily volume of the entire US equities market in 2019."

I shit you not, at 24:35.

He also said, "During the frenzied period of retail trading, Citadel Securities was able to provide continuous **liquidity** every minute of every trading day. When others were unable... or willing to **meet the demand**, Citadel Securities was there. I could not be more proud of our team."

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Logic

If demand for a particular security *rapidly* increases, the AP, or some AP, must provide (as I've quoted a few times now) **liquidity** to meet that demand, even though the demand was for a *particular security*.

If supply is lacking in a *particular security*, APs have a responsibility to provide it. Throughout January 2021 and *particularly* on the 27th, there was **unprecedented volume** -

whether this was shorts covering, regular retail trading, apes gobbling GME pacman style, some of which are among the thousands of high schoolers with pandemic stimulus money and almost nothing to spend it on except a free iPhone app that lets them buy cool stocks they saw online like a video game at zero commission -

all of that buying pressure - much of which was **heavily** skewed toward a few dozen securities, likely required **unprecedented liquidity** in those *particular securities.*

As beaten to death at this point, **ETF redemption** and **hedging** are ways of turning "liquidity" into *particular securities*.

To take full advantage of *both* of those, it helps to be an Authorized Participant *and* a Market Maker in the markets in

question.

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Facts, again, but with some logic too

Directly from **Citadel's Website** -

"Citadel Securities is a leading market maker to the world's institutions and broker-dealer firms. Our automated equities platform trades approximately **26% of U.S. equities volume**....We execute approximately **47% of all U.S.-listed retail volume**, making us the industry's **top wholesale market maker**. Citadel Securities acts as a specialist or market maker in more than 3,000 U.S. listed-options names, **representing 99% of traded volume**, and ranks as a **top liquidity provider on the major U.S. options exchanges**."

Citadel is a Market Maker *and* an Authorized Participant - capable of capitalizing on liquidity provision *and* hedging responsibilities.

but.. how again, exactly? Like, cash to GME, what's in the middle?

Hedging is the easy part. Well easier to explain at least. 2 options:punintended 1) directly sell short and hedge with some long options position. 2) sell calls / buy puts (as MMs, they can influence these prices and choose which trades to take), and then sell the shares you were forced to hedge with

I'm not *entirely* sure #2 is legal but #1 most definitely is.

Directly selling short is the way to go, though, because you don't increase the buy pressure, whereas hedging would force you to buy then resell.

I really should say: "Directly selling short is the way to go because you get to force the price down, whereas hedging would allow the movement to remain natural."

I've been reading too much of this shit...

Anyway, there's another way to sell without buying, directly forcing the price down: Get the shares from an ETF:

From **BlackRock's iShares IWM prospectus** -

"...the Fund sells and redeems its shares directly through transactions that are **in-kind and/or for cash**, subject to the conditions described below under Creations and Redemptions."

to the fine print we go

"A creation transaction, which is subject to acceptance by the Distributor of the Fund, generally takes place when an Authorized Participant deposits into the Fund **a designated portfolio of securities, assets or other positions** (a "creation basket"), **and an amount of cash** (including any cash representing the value of substituted securities, assets or other positions), if any, **which together approximate the holdings of the Fund** in exchange for a specified number of Creation Units."

So if I'm reading that right, [any pile of securities, short sales, derivates, or cash] = [ETF shares]...

And, of course, it works backward as well:

"Similarly, shares can be redeemed only in Creation Units, generally for a designated portfolio of securities, assets or other positions (a "redemption basket") held by the Fund and an amount of cash (including any portion of such securities for which cash may be substituted)."

So *actually* -

[any pile of securities, short sales, derivates, or cash] = [ETF shares] = [Underlying Shares]

Oh, and to reiterate from the first post:

"To the extent the Fund engages in in-kind transactions, the Fund intends to **comply with the U.S. federal securities laws** in accepting securities for deposit and satisfying redemptions with redemption securities by, among other means, **assuring that any securities accepted for deposit and any securities used to satisfy redemption requests will be sold in transactions that would be exempt from registration under the Securities Act of 1933**, as amended (the "1933 Act"). Further, an Authorized Participant that is not a "qualified institutional buyer," as such term is defined in Rule 144A under the 1933 Act, will not be able to receive restricted securities eligible for resale under Rule 144A."

So they don't have to report these shares - that's bad enough. But what's that part at the end? Does that imply the AP's who *are* institutional buyers *can* receive "restricted securities eligible for resale"? How much borrowing do they have to account for *in the prospectus?*

((The very *existence* of this mechanism depicts the chasm between Wall Street and the public. They would say it improves liquidity and decreases volatility. I would say it's potentially manipulative, potentially *deflationary* to underlying securities, and I'd argue that **it's actually major culprit in liquidity issues**. Which isn't so surprising since it's the very mechanism siphoning liquidity away in the first place.))

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GameStop, for real this time

So after *all that* - this next part, uh... this might be a little awkward, but.. back to those **7.4 billion shares** Citadel executed for *retail investors alone* on **a single freaking day.** Do you remember the prices increases of some *particular securities* that were sold?? Can you **imagine** filling all of those buy orders?

Probably not, and I don't know if Ken did, either. Remember, this **is** the system, or roughly half of it. This is where your trades go, and how the system is *designed* to react.

The *other* half would be the other APs. JP, GS, you know the crew. The ones that all **reported ownership of GME's ETFs in the last few months**.

Why is that relevant? Well, as GME buying pressure goes up, APs need ETF to redeem. So the buying pressure in ETFs goes up but *uh oh* - who's selling the ETF? Some of them are pretty illiquid to begin with, **so which AP bites the bullet, and shorts the ETF?**

That'd be the one that didn't report buying them. Because they can't. Citadel Securities LLC.

I'm probably just seeing things, but those 13F filings, to me, say *Wasn't me!* To me, they may as well be fingers pointing at Ken.

Now, I have absolutely no idea *why* Ken bit the bullet in January. It could be that the technology netting him half of retail's trades, possibly their risk profiles, and the capability of that technology to generate the liquidity provided to *literally* keep the system from collapsing - it is possible that their technology may have been uniquely capable of handling the demand.

It is also possible that all of the APs and Market Makers share pieces of the GME debt-*gâteau*.

I **believe** based on, well, the above and the work of u/atobitt, Wes Christian and the like, that the true answer is some combination of those two and the following -

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Guesses, as educated as I can make them

It is likely that GameStop has been aggressively sold short for many years - particularly since 2014. And as the ETF market grew from $100 billion to $5.6 **T**rillion in assets, I'd argue that ETF creation/redemption, intentionally or not, facilitated this

process.

Remember the ETF gobble/profit cycle I mentioned earlier? Maybe, and this is just a guess, this is some part of the "distribution" BlackRock is referring to in IWM's prospectus -

"Because new shares may be created and issued on an ongoing basis, at any point during the life of the Fund a “distribution,” as such term is used in the 1933 Act, may be occurring."

Well, that gobble/profit cycle would *love* for Hedge Funds and other firms to short sell GME, right? Price goes down, you get to make more ETF. It feeds directly into the cycle.

So, in my worthless opinion, I think there's a significant possibility that many firms were short GME for many years, then ETFs came along, allowing APs to get in on the action, then HFT came along and combined a targeted short attack with a arguably dodgy, yet profitable trading tool and "accidentally" created a **massive ocean of rolling FTDs**, ...

Yes that sounds crazy. But I'm not pulling that out of thin air. I remember even MarketWatch said GME had over 60 million shares short on January 15, and I went through like 10 ways to skirt reporting. Look at the ETF growth: $4 billion in 2007 to $7.7 trillion last year. That's over 192,000%.

Honestly, and I mean this *can't* be right... but from everything I read, naked short selling is the clear, primary route of instant liquidity. That's terrifying because these are just computers programmed within certain parameters, but I think that's *why* naked short selling is the go-to: these things don't locate, it's far simpler and far faster to just sell now and use the three day (or 6 day, or 35 day, or *perpetual*) settlement cycle to look for a cheaper long synthetic position to hedge with.

And when the delivery day comes, they do it again, and again, and again, because their coded to look for profits, to *make money*, and I don't know if there's a parameter than accounts for **all the shares sold, trading, and collateralized on the books with derivatives** that build up over time as excess supply.

I could go on and on.. how spikes in GME FTD volume are perfectly in between those of its ETFs. How the spikes in options OI also line up perfectly. Or how creation baskets can even be "custom" and just theoretically be 50,000 GME's. It doesn't matter, the bottom line is -

actually, I'll let BlackRock tell you,

"Broker-dealers and other persons are cautioned that some activities on their part may, depending on the circumstances, result in their being deemed participants in a distribution in a manner that could render them statutory **underwriters** subject to the prospectus delivery and liability provisions of the 1933 Act."

luv u Ryan

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If you're learning all of this for the first time, *shit*, honestly I can't imagine it. Like I said in the first post, it's taken me months to put all of this together - and I've felt crazier by the week. Maybe I'm missing something huge here, but 5.6 **T**rillion dollars is a lot of dollars, so this ETF thing seems kind of important. And really, I think I just needed to get it out of my brain and into words.

and make no mistake, there were **1 billion GME shares** traded in the January run up. Idk if the original shorts were able to actually cover *anything*, but even if they *did* - those buy orders were filled with short sales all the way up, just like the system was coded to do.

Almost $500 billion in GME was sold in January. Of all the *concentrated*,*particular stocks* in January's madness - GME sold the highest dollar amount by $496 billion. Second was AMC, at $4b. AMC has since surpassed its January peak by over 350%. Just saying.

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3 little things before I go...

First, this overall explanation of the market does a great job of explaining similar price movements we see in multiple stocks. In the face of HFT algos naked short selling possibly *billions* of shares in a single day, we see multiple prices move along the FTD cycles.

Second, it also connects the treasury markets - because as u/atobitt explained, the 10-20 year treasury bonds are the preferred collateral of the Repo Market, the largest and most liquid market on the planet (I think). One could buy (or otherwise obtain) treasury ETF shares, redeem them for bonds, and go to the Repo Market. *voila* cash to do everything I just described.

Oh and, second-and-a-half, Michael Burry shorted a 20 year treasury ETF for like 500mil I think. TTT. You should check it out.

Last thing - Idk if this is common across ETFs, but IWM rebalances ever February, May, August, and November. If you look at GME toward the ends of months, price and volume tend to increase. Which is weird, since GME has been in increasing in price since last November.

While increasing, you'd expect the ETF to be redeemed for shares (ownership decreases), and if the price in February greater than in November, (it was, and this may have been what they were shooting for.. *sooo close*, kinda, not really), then the ETF should have to **sell** GME shares to maintain its proportions.

So why is GME's price going up while its ETFs are selling shares?

Dr. Burry, again, comes to mind. Remember when he sold in October, and it took his brokers weeks to find his shares? If an ETF needs to sell shares to maintain its portfolio, but it's lent all its shares, it needs to recall enough shares to meet the sale, and every borrow and re-borrow and re-borrow needs bought and rebought and rebought.

That both explains the run-ups and confirms the shit outta my bias. And don't forget that ETF ownership *increased* since November, so any ETF un-siphoned to meet demand in January and re-siphoned by February. And then some.

So, all put together, it almost looks like the shorts tried to cover, failed, almost broke the system by doing it at the same time as everybody else, and now the system that was coded to prevent the MOASS, and was successful, is trying to release all that pressure at factions of the volume that created it.

There the shares.

Naked shorts and derivative collateral and cash covered ETF swaps, maybe married puts too and when it comes time to cover, do it again, because it's cheaper that way.

And if you need cash to do all of this 10 times over to prevent a system collapse, formally known around here as the MOASS, you derive collateral for the treasury ETFs too and make the whole problem worse when now that the sell pressure is gone.

That, maybe, is the House of Cards.

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If you heard me out and still think it's too crazy, I don't blame you. Thank you for humoring my brain dump. And I hope I didn't offend my French apes, really Idk why I ran with that theme.

HODL